

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 86-90

WASTE DISCHARGE REQUIREMENTS FOR:

FAIRCHILD SEMICONDUCTOR CORPORATION
MICRO POWER SYSTEMS, INC.
PRUDENTIAL REALTY GROUP
ALFRED STREET FACILITY
SANTA CLARA, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Micro Power Systems, Inc., Fairchild Semiconductor Corporation, and Prudential Realty Group, (hereinafter referred to as the dischargers), are or have been involved with semiconductor manufacturing, test, and assembly facilities located at 3080-3100 Alfred Street. Micro Power Systems, Inc., is the current tenant of the facility involved in the handling of some of the chemicals that have been found in groundwater at the site. Fairchild Semiconductor Corporation, is a former tenant involved in the handling of some of the chemicals that have been found in groundwater at the site. The Prudential Realty Group is the current property owner.
2. Subsurface investigations initiated in March 1982 discovered volatile organic chemicals in both soils and groundwater beneath the site. Based upon chemical usage data and soil and groundwater sampling results from the site, it is determined that both Micro Power and Fairchild have contributed to the release of chemicals to the soil and groundwater. A portion of the chemicals in the groundwater may be migrating onto the property from an offsite source.
3. The principal pollutants detected in the groundwater are 1,1,1-trichloroethane (TCA), and trichloroethylene (TCE). In five of the seven groundwater monitoring wells that have been sampled regularly since 1982, concentrations of TCE have not exceeded 510 parts per billion (ppb). Concentrations of TCA have not exceeded 140 ppb. Higher concentrations, up to 2000 ppb, of TCE have been detected in two other wells. Based upon existing information, soil contamination does not

appear to be a problem, but further investigation may indicate otherwise. Further investigation and remedial action is also necessary to define the extent of the pollution, and to prevent the continued migration of pollutants to unaffected groundwaters in a manner which could adversely affect existing and potential beneficial uses.

4. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives and beneficial uses for South San Francisco Bay and contiguous surface and groundwaters.
5. The existing and potential beneficial uses of the groundwater underlying and adjacent to the facility include:
 - a. Industrial process water supply
 - b. Industrial service supply
 - c. Domestic supply
 - d. Agricultural supply
6. This project constitutes a minor modification to land and as such is exempt from the provisions of the California Environmental Quality Act, (CEQA), in accordance with Section 15304 of the Resources Agency Guidelines.
7. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
8. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the state is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup, which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharger shall conduct monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution in and contiguous to the zone of known pollution. Should monitoring results show evidence of plume migration, additional plume characterization shall be required.

C. PROVISIONS

1. The discharger shall perform self-monitoring tasks according to a program approved by the Executive Officer.
2. The discharger shall comply with Prohibition A.1, A.2, and A.3, and Specifications B.1 and B.2 above, in accordance with the following tasks and time schedule:

<u>Task</u>	<u>Completion Date</u>
a. Submit a technical report satisfactory to the Executive Officer defining the vertical extent of the onsite groundwater pollution	March 1, 1987
b. Submit a technical report satisfactory to the Executive Officer defining the horizontal and vertical extent of the offsite groundwater pollution emanating from the Alfred Street facility	June 1, 1987

<u>Tasks</u>	<u>Completion Date</u>
c. Submit a technical report which summarizes the results of an investigation to identify, locate, and evaluate abandoned wells which may act as vertical conduits for the migration of pollutants from shallow to deep aquifers	June 1, 1987
d. Submit a technical report satisfactory to the Executive Officer documenting the installation and commencement of operations of necessary hydraulic control structures and/or treatment facilities of adequate design to contain and cleanup the areas of high chemical concentrations onsite.	August 3, 1987
e. Submit a technical report satisfactory to the Executive Officer which contains a recommended remedial action plan for full containment and cleanup of the entire pollutant plume. The plan shall include a discussion of alternative plans considered in the development of the recommended plan. This report shall include consideration of the removal and/or cleanup of polluted soils, and an implementation time schedule, if the plan includes such removal or cleanup. This report shall also include a completed	August 3, 1987

<u>Tasks</u>	<u>Completion Date</u>
NPDES application to discharge to surface waters, if such discharge is an element of the plan.	
f. Submit a technical report satisfactory to the Executive Officer documenting installation of and commencement of operations of necessary hydraulic control and/or treatment facilities of adequate design to contain and cleanup to the entire pollutant plume.	January 20, 1988
g. Submit a technical report satisfactory to the Executive Officer which evaluates the effectiveness of the hydraulic containment system in Provision C.2.f. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zones of the wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data, if extraction wells are proposed. This report shall also evaluate and document the removal and/or cleanup of polluted soils, if such removal and/or cleanup is an element of the remedial action plan. Specific modifications to the system and an implementation time schedule shall be	April 4, 1988

TasksCompletion Date

proposed in the event that the hydraulic control system is demonstrated not to be effective in containing and cleaning up the pollutant plume.

- h. Submit a technical report April 4, 1989
satisfactory to the
Executive Officer
containing a summary
of the results of the
remedial investigation,
an evaluation of alter-
native final remedial
measures and a recom-
mendation on which
additional measures, if
any, should be imple-
mented.

The technical report's
evaluation of final
remedial measures will
include a projection of
the cost, effectiveness,
benefits, and impact on
public health, welfare,
and environment of each
measure, and shall con-
sider guidance provided in
Subpart F of the National
Oil and Hazardous Subs-
tances Pollution Contingency
Plan (40 CFR Part 300), upon
Section 25356.1 (c) of the
California Health and
Safety Code, and CERCLA
guidance documents.

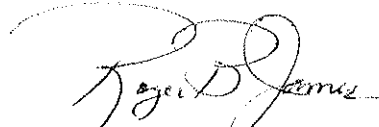
3. Technical progress reports on compliance with the
Prohibitions, Specifications, and Provisions of this
Order shall be submitted to the Board commencing on
June 1, 1987. On a monthly basis, these reports shall

consist of a brief letter report that, (1) summarizes work completed since submittal of the previous report, and work projected to be completed by the time of the next of report, and (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles. On a quarterly basis these reports shall include, but need not be limited to, updated water table and piezometric surface contour maps, pollution concentration contour maps for all affected water bearing zones, cross-sectional geological maps describing the hydrogeologic setting of the site, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures.

4. If the companies are delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order by reason of circumstances or failure which could not have been reasonably foreseen or controlled by the companies, the companies shall promptly notify the Executive Officer. In the event of such delays, the Board intends to consider modification of the task completion dates established in this Order.
5. All hydrogeological plans, specifications, reports, and documents shall be signed and/or stamped with the seal of a registered geologist, engineering geologist, or professional engineer.
6. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this order, shall be provided to the following agencies:
 - a. Santa Clara Valley Water District
 - b. Santa Clara County Health Department
 - c. City of Santa Clara
 - d. State Department of Health Services/TSCD
7. The dischargers shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

- b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
8. The dischargers shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
9. The dischargers shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
10. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on November 19, 1986.


ROGER B. JAMES
Executive Officer